A.F. OUTPUT PENTODE

Pentode intended for use as A.F. power amplifier.

QUICK REFERENCE DATA			
Anode current	I_a	70	mA
Transconductance	S	11	mA/V
Amplification factor	$\mu_{g_2g_1}$	8	
Output power	W_o	5.3	W

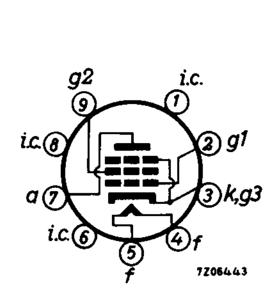
HEATING: Indirect by A.C. or D.C.; series supply

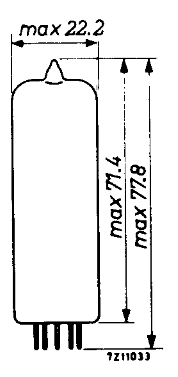
Heater current	I_f	100	mA
Heater voltage	V_f	45	V

DIMENSIONS AND CONNECTIONS

Dimensions in mm

Base: Noval





CAPACITANCES

Anode to all except grid No.1	$C_{a(g_1)}$		6.8	pF
Grid No.1 to all except anode	$C_{g_1(a)}$		13	pF
Anode to grid No.1	C_{ag_1}	max.	0.6	pF
Grid No.1 to heater	C_{g_1f}	max.	0.25	pF

TYPICAL CHARACTERISTICS

Anode voltage	V_a	170	V
Grid No. 2 voltage	V_{g2}	170	V
Grid No. 1 voltage	V_{g1}	-12.5	V
Anode current	I_a	70	mA
Grid No. 2 current	I_{g2}	3.5	mA
Transconductance	S	11	mA/V
Amplification factor	μ_{g2g1}	8	
Internal resistance	R_i	26	kΩ

OPERATING CHARACTERISTICS

Class A [1])

Supply voltage	V_b		100			170		V
Cathode resistor	R_k		130			130		Ω
Load resistance	$R_{a\sim}$		2.1			2.0		kΩ
Grid No. 1 driving voltage	V_i	0	0.55	3.8	0	0.47	6.1	V_{RMS}
Anode current	I_a	41	-	42	75	-	76	mA
Grid No. 2 current	I_{g2}	2.6	-	8.6	4.0	-	16.5	mA
Output power	W_o	0	0.05	1.55	0	0.05	5.1	W
Distortion	d_{tot}	-	-	10	-	-	10	%

Supply voltage	V_b		200		V
Grid No. 2 series resistor (non decoupled)	R_{g2}		470		Ω
Cathode resistor	R_k		215		Ω
Load resistance	$R_{a\sim}$		2.5		kΩ
Grid No. 1 driving voltage	V_i	0	0.52	7.0	V_{RMS}
Anode current	I_a	65	-	64	mA
Grid No. 2 current	I_{g2}	3.2	-	11.4	mA
Output power	W_o	0	0.05	5.3	W
Distortion	d_{tot}	-	-	10	%

[1]) Measured with V_k kept constant.

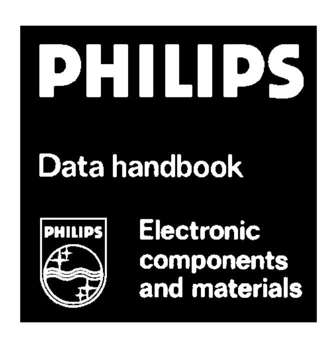
OPERATING CHARACTERISTICS (continued)

Class AB, two tubes in push-pull

Supply voltage	V_b		200		V
Common cathode resistor	R_k		120		Ω
Load resistance	$R_{aa\sim}$		3		kΩ
Grid No.1 driving voltage	V_i	0	0.47	14.3	V_{RMS}
Anode current	I_a	2x60	-	2x64.5	mA
Grid No.2 current	I_{g_2}	2x3.0	-	2x18.5	mA
Output power	W_o	0	0.05	14.3	W
Distortion	d_{tot}	-	-	3.8	%

LIMITING VALUES (Design centre rating system)

Anode voltage	V_{a_o}	max.	550	V
	V_a	max.	250	V
Grid No.2 voltage	$V_{g_{2o}}$	max.	550	V
	V_{g_2}	max.	200	V
Anode dissipation	W_a	max.	12	W
Grid No.2 dissipation, average	W_{g_2}	max.	1.75	W
peak	$W_{g_{2p}}$	max.	6	W
Cathode resistor	I_k	max.	100	mA
Grid No.1 resistor, automatic bias	R_{g_1}	max.	1	MΩ
Cathode to heater voltage	V_{kf}	max.	200	V



UL84

page	sheet	date
1	1	1969.12
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3	3	1969.01
4	FP	1999.07.29